



## WLCG - Tier-2 Accounting Summary

October 2007

Efficiency factor for Tier-2 sites - utilisation 60% of pledge as specified in TDR

CPU usage in month (KS12K-Hrs)

Federation	2007 CPU Pledge (KS12K)	pledge inc. efficiency (KS12K-Hrs)	Site(s)	ALICE	ATLAS	CMS	LHCb	Total	delivered as % of pledge
Australia, University of Melbourne			Australia-UNIMELB-LCG2		2,634			2,634	
<b>AU-ATLAS</b>	<b>120</b>	<b>53,568</b>			<b>2,634</b>			<b>2,634</b>	<b>5%</b>
Austria, Austrian Tier-2 Federation			HEPHY-UIBK		775			775	
<b>AT-HEPHY-VIENNA-UIBK</b>	<b>120</b>	<b>53,568</b>			<b>775</b>			<b>775</b>	<b>1%</b>
Belgium, Belgian Tier-2 Federation			BEgrid-ULB-VUB			6,865		6,865	
			BelGrid-UCL			48,817		48,817	
<b>BE-TIER2</b>	<b>600</b>	<b>267,840</b>				<b>55,682</b>		<b>55,682</b>	<b>21%</b>
China, IHEP, Beijing			BEIJING-LCG2		1,106	798		1,904	
<b>CN-IHEP</b>	<b>500</b>	<b>223,200</b>			<b>1,106</b>	<b>798</b>		<b>1,904</b>	<b>1%</b>
Czech Rep., FZU AS, Prague			prague_lcg2	32,656	24,107			56,763	
			prague_cesnet_lcg2		3,371			3,371	
<b>CZ-Prague-T2</b>	<b>80</b>	<b>35,712</b>		<b>32,656</b>	<b>27,478</b>			<b>60,134</b>	<b>168%</b>
Finland, NDGF/HIP Tier2			no information received from collaboration board member						
<b>FI-</b>	<b>187</b>	<b>83,477</b>							
France, CC-IN2P3 AF			IN2P3-CC-T2						
<b>FR-IN2P3-CC-T2</b>	<b>320</b>	<b>142,848</b>							
France, GRIF, Paris			GRIF	180,245	151,898	4,996	5,822	342,961	
<b>FR-GRIF</b>	<b>529</b>	<b>236,146</b>		<b>180,245</b>	<b>151,898</b>	<b>4,996</b>	<b>5,822</b>	<b>342,961</b>	<b>145%</b>
France, LAPP, Annecy			IN2P3-LAPP		86,953		11,951	98,904	
<b>FR-IN2P3-LAPP</b>	<b>350</b>	<b>156,240</b>			<b>86,953</b>		<b>11,951</b>	<b>98,904</b>	<b>63%</b>
France, LPC, Clermont-Ferrand			IN2P3-LPC	162,625	231,348		949	394,922	
<b>FR-IN2P3-LPC</b>	<b>450</b>	<b>200,880</b>		<b>162,625</b>	<b>231,348</b>		<b>949</b>	<b>394,922</b>	<b>197%</b>
France, SUBATECH, Nantes			IN2P3-SUBATECH	232,285				232,285	
<b>FR-IN2P3-SUBATECH</b>	<b>224</b>	<b>99,994</b>		<b>232,285</b>				<b>232,285</b>	<b>232%</b>
Germany, GSI, Darmstadt			GSI-LCG2	366				366	
<b>DE-GSI</b>	<b>260</b>	<b>116,064</b>		<b>366</b>				<b>366</b>	<b>0%</b>
Germany, DESY, Hamburg			DESY-HH					2,940	
			DESY-ZN				2,940	2,940	
<b>DE-DESY-LHCb-T2</b>	<b>80</b>	<b>35,712</b>					<b>2,940</b>	<b>2,940</b>	<b>8%</b>
Germany, ATLAS Federation FR/W			UNI-FREIBURG		16,019			16,019	
			wuppertalprod		50,234			50,234	
<b>DE-FREIBURGWUPPERTAL</b>	<b>80</b>	<b>35,712</b>			<b>66,253</b>			<b>66,253</b>	<b>186%</b>

Federation	2007 CPU Pledge (KS12K)	pledge inc. efficiency (KS12K- Hrs)	Site(s)	ALICE	ATLAS	CMS	LHCb	Total	delivered as % of pledge
Germany, ATLAS Federation, Munich			DESY-HH		56,854			56,854	
			DESY-ZN		79,426			79,426	
<b>DE-DESY-ATLAS-T2</b>	<b>60</b>	<b>26,784</b>			<b>136,280</b>			<b>56,854</b>	<b>212%</b>
Germany, CMS Federation			DESY-HH			73,134		73,134	
			DESY-ZN			329		329	
			RWTH-Aachen			44,339		44,339	
<b>DE-DESY-RWTH-CMS-T2</b>	<b>500</b>	<b>223,200</b>				<b>117,802</b>		<b>117,802</b>	<b>53%</b>
India, TIFR, Mumbai			INDIACMS-TIFR						
<b>IN-INDIACMS-TIFR</b>	<b>131</b>	<b>58,478</b>							
India, VECC/SINP, Kolkata			IN-DAE-VECC-01	6,461				6,461	
<b>IN-DAE-KOLKATA-TIER2</b>	<b>282</b>	<b>125,885</b>		<b>6,461</b>				<b>6,461</b>	<b>5%</b>
Israel, HEP-IL Tier-2 Federation			WEIZMANN-LCG2	3	6,995	38	725	7,761	
			TAU-LCG2	7	3,856	2	482	4,347	
<b>IL-HEPTier-2</b>	<b>61</b>	<b>27,230</b>		<b>10</b>	<b>10,851</b>	<b>40</b>	<b>1,207</b>	<b>12,108</b>	<b>44%</b>
Italy, INFN ALICE Federation			INFN-BARI	9,992				9,992	
			INFN-CATANIA						
			INFN-FRASCATI						
			INFN-LNL-2	15,697				15,697	
			INFN-MILANO						
			INFN-NAPOLI-ATLAS						
			INFN-PISA						
			INFN-ROMA1						
			INFN-ROMA1-CMS						
			INFN-TORINO	88,654				88,654	
<b>IT-ALICE-federation</b>	<b>550</b>	<b>245,520</b>		<b>114,343</b>				<b>114,343</b>	<b>47%</b>
Italy, INFN ATLAS Federation			INFN-BARI		3,474			3,474	
			INFN-CATANIA						
			INFN-FRASCATI		12,774			12,774	
			INFN-LNL-2		2,577			2,577	
			INFN-MILANO		34,844			34,844	
			INFN-NAPOLI-ATLAS		25,161			25,161	
			INFN-PISA						
			INFN-ROMA1		11,589			11,589	
			INFN-ROMA1-CMS						
			INFN-TORINO		1			1	
<b>IT-ATLAS-federation</b>	<b>400</b>	<b>178,560</b>			<b>90,420</b>			<b>90,420</b>	<b>51%</b>

Federation	2007 CPU Pledge (KS12K)	pledge inc. efficiency (KS12K- Hrs)	Site(s)	ALICE	ATLAS	CMS	LHCb	Total	delivered as % of pledge
Italy, INFN CMS Federation			INFN-BARI			11,113		11,113	
			INFN-CATANIA						
			INFN-FRASCATI						
			INFN-LNL-2			28,187		28,187	
			INFN-MILANO						
			INFN-NAPOLI-ATLAS						
			INFN-PISA			56,957		56,957	
			INFN-ROMA1						
			INFN-ROMA1-CMS			5,289		5,289	
			INFN-TORINO						
<b>IT-CMS-federation</b>	<b>400</b>	<b>178,560</b>				<b>101,546</b>		<b>101,546</b>	<b>57%</b>
Italy, INFN LHCb Federation			INFN-BARI				3	3	
			INFN-CATANIA						
			INFN-FRASCATI						
			INFN-LNL-2				2	2	
			INFN-MILANO						
			INFN-NAPOLI-ATLAS						
			INFN-PISA						
			INFN-ROMA1						
			INFN-ROMA1-CMS						
			INFN-TORINO				297	297	
<b>IT-LHCb-federation</b>	<b>150</b>	<b>66,960</b>					<b>302</b>	<b>302</b>	<b>0%</b>
Japan, ICEPP, Tokyo			TOKYO-LCG2		311,810			311,810	
<b>JP-Tokyo-ATLAS-T2</b>	<b>1,000</b>	<b>446,400</b>			<b>311,810</b>			<b>311,810</b>	<b>70%</b>
Norway, UNINETT SIGMA Tier-2			no information received from collaboration board member						
<b>NO-</b>									
Pakistan, Pakistan Tier-2 Federation			NCP-LCG2			71	1	72	
			PAKGRID-LCG2						
<b>PK-CMS-T2</b>	<b>410</b>	<b>183,024</b>				<b>71</b>	<b>1</b>	<b>72</b>	<b>0%</b>
Poland, Polish Tier-2 Federation			AMD64.PSNC.PL		1	92		93	
			CYFRONET-IA64	2,271		4		2,275	
			CYFRONET-LCG2	976	106,344	117	2,156	109,593	
			egee.man.poznan.pl	5,566	1	14		5,581	
			WARSAW-EGEE	543	5,101	67,484	10,908	84,036	
<b>PL-TIER2-WLCG</b>	<b>650</b>	<b>290,160</b>		<b>9,356</b>	<b>111,447</b>	<b>67,711</b>	<b>13,064</b>	<b>201,578</b>	<b>69%</b>

Federation	2007 CPU Pledge (KS12K)	pledge inc. efficiency (KS12K- Hrs)	Site(s)	ALICE	ATLAS	CMS	LHCb	Total	delivered as % of pledge
Portugal, LIP Tier-2 Federation			LIP-Coimbra		112	3		115	
			LIP-Lisbon		19,063	920		19,983	
<b>PT-LIP-LCG-Tier2</b>	<b>500</b>	<b>223,200</b>			<b>19,175</b>	<b>923</b>		<b>20,098</b>	<b>9%</b>
Romania, Romanian Tier-2 Federation			NIHAM	158,323				158,323	
			RO-01-ICI						
			RO-02-NIPNE		21,637			21,637	
			RO-03-UPB						
			RO-07-NIPNE	19,967	44,458		294	64,719	
			RO-11-NIPNE				271	271	
<b>RO-LCG</b>	<b>735</b>	<b>328,104</b>		<b>178,290</b>	<b>66,095</b>		<b>565</b>	<b>244,950</b>	<b>75%</b>
Russian Fed., Russian Data-Intensive GRID			RU-Protvino-IHEP	1,332	19,028	37	377	20,774	
			ITEP	92,213	31,279	461	14,388	138,341	
			JINR-LCG2	266,148	2,861	11,516	149	280,674	
			RRC-KI	1	2	45	76	124	
			RU-Moscow-SINP-LCG2	407	114	3	70	594	
			RU-Moscow-FIAN-LCG2		199	1		200	
			RU-Moscow-MEPHI-LCG2		472			472	
			RU-SPbSU						
			RU-Phys-SPbSU						
			RU-PNPI-LCG2	94,501	36,296	1,758	2,025	134,580	
			RU-Troitsk-INR-LCG2	10,628		113	104	10,845	
<b>RU-RDIG</b>	<b>3,100</b>	<b>1,383,840</b>		<b>465,230</b>	<b>90,251</b>	<b>13,934</b>	<b>17,189</b>	<b>586,604</b>	<b>42%</b>
Slovenia, SiNET			SINET		93,175			93,175	
<b>SI-SINET</b>	<b>200</b>	<b>89,280</b>			<b>93,175</b>			<b>93,175</b>	<b>104%</b>
Spain, ATLAS Federation			Ifae		25,814			25,814	
			IFIC-LCG2		64,980			64,980	
			UAM-LCG2		110,934			110,934	
<b>ES-ATLAS-T2 tbc</b>	<b>117</b>	<b>52,229</b>			<b>201,728</b>			<b>201,728</b>	<b>386%</b>
Spain, CMS Federation			CIEMAT-LCG2			73,068		73,068	
			IFCA-LCG2			8,078		8,078	
<b>ES-CMS-T2</b>	<b>380</b>	<b>169,632</b>				<b>81,146</b>		<b>81,146</b>	<b>48%</b>
Spain, LHCb Federation			UB-LCG2				81	81	
			USC-LCG2				568	568	
<b>ES-LHCb-T2</b>	<b>118</b>	<b>52,675</b>					<b>649</b>	<b>649</b>	<b>1%</b>
Sweden, SNIC Tier-2			no information received from collaboration board member						
<b>SE-</b>	<b>244</b>	<b>108,922</b>							
Switzerland, CHIPP			CSCS-LCG2		14,852	32,381	6,572	53,805	
<b>CH-CHIPP-CSCS</b>	<b>200</b>	<b>89,280</b>			<b>14,852</b>	<b>32,381</b>	<b>6,572</b>	<b>53,805</b>	<b>60%</b>

Federation	2007 CPU Pledge (KS12K)	pledge inc. efficiency (KS12K- Hrs)	Site(s)	ALICE	ATLAS	CMS	LHCb	Total	delivered as % of pledge
Taipei, Taiwan Analysis Facility Federation			TW-FTT		63	24		87	
<b>TW-</b>	<b>310</b>	<b>138,384</b>			<b>63</b>	<b>24</b>		<b>87</b>	<b>0%</b>
UK, London Tier 2			UKI-LT2-Brunel	996	114,055	22,366	12,522	149,939	
			UKI-LT2-IC-HEP	614	54,884	99,527	78	155,103	
			UKI-LT2-IC-LeSC	4	1,742	340	1	2,087	
			UKI-LT2-QMUL	642	65,752	389	219	67,002	
			UKI-LT2-RHUL	75	21,548	2,294	114	24,031	
			UKI-LT2-UCL-CENTRAL	218	2,069	74	123	2,484	
			UKI-LT2-UCL-HEP					24	
<b>UK-London-Tier2</b>	<b>2,500</b>	<b>1,116,000</b>		<b>2,549</b>	<b>260,074</b>	<b>124,990</b>	<b>13,057</b>	<b>400,670</b>	<b>36%</b>
UK, NorthGrid			UKI-NORTHGRID-LANCS-HEP	398	71,505	242	744	72,889	
			UKI-NORTHGRID-LIV-HEP	93	113,113	184	5,156	118,546	
			UKI-NORTHGRID-MAN-HEP	995	380,989	359	427	382,770	
			UKI-NORTHGRID-SHEP-HEP	439	20,810	4	4,327	25,580	
<b>UK-NorthGrid</b>	<b>2,600</b>	<b>1,160,640</b>		<b>1,925</b>	<b>586,417</b>	<b>789</b>	<b>10,654</b>	<b>599,785</b>	<b>52%</b>
UK, ScotGrid			UKI-SCOTGRID-DURHAM	196	24,128	242	2,367	26,933	
			ScotGRID-Edinburgh	44	20	6	102	172	
			UKI-SCOTGRID-GLASGOW		78,232	60	9,186	87,478	
<b>UK-ScotGrid</b>	<b>340</b>	<b>151,776</b>		<b>240</b>	<b>102,380</b>	<b>308</b>	<b>11,655</b>	<b>114,583</b>	<b>75%</b>
UK, SouthGrid			EFDA-JET	154	339	73		566	
			UKI-SOUTHGRID-BHAM-HEP	153	3,007	5	18	3,183	
			UKI-SOUTHGRID-BRIS-HEP	65	1,880	114	398	2,457	
			UKI-SOUTHGRID-CAM-HEP		727		11	738	
			UKI-SOUTHGRID-OX-HEP	1,058	13,506	203	3,898	18,665	
			UKI-SOUTHGRID-RALPP	2	48,141	946	196	49,285	
<b>UK-SouthGrid</b>	<b>940</b>	<b>419,616</b>		<b>1,432</b>	<b>67,600</b>	<b>1,341</b>	<b>4,521</b>	<b>74,894</b>	<b>18%</b>
Ukraine, Ukrainian Tier-2 Federation			no information received from collaboration board member						
<b>UA-</b>	<b>600</b>	<b>267,840</b>							
USA, Great Lakes ATLAS T2			AGLT2		211,851			211,851	
<b>US-AGLT2</b>	<b>581</b>	<b>259,358</b>			<b>211,851</b>			<b>211,851</b>	<b>82%</b>
USA, Northeast ATLAS T2			BU_ATLAS_Tier2		152,944			152,944	
			BU_ATLAS_Tier2o						
<b>US-NET2</b>	<b>394</b>	<b>175,882</b>			<b>152,944</b>			<b>152,944</b>	<b>87%</b>

Federation	2007 CPU Pledge (KS12K)	pledge inc. efficiency (KS12K- Hrs)	Site(s)	ALICE	ATLAS	CMS	LHCb	Total	delivered as % of pledge
USA, Midwest ATLAS T2			MWT2_UC		143,426			143,426	
			MWT2_IU		117,362			117,362	
			UC_Teraport		4			4	
			UC_ATLAS_MWT2		5,384			5,384	
			IU_ATLAS_Tier2						
			IU_OSG		12,050			12,050	
<b>US-MWT2</b>	<b>826</b>	<b>368,726</b>			<b>278,226</b>			<b>278,226</b>	<b>75%</b>
USA, Southwest ATLAS T2			OU_OCHEP_SWT2		16,228			16,228	
			OU_OSCER_ATLAS		19,502			19,502	
			UTA_DPCC		34,606			34,606	
			UTA_SWT2						
<b>US-SWT2</b>	<b>998</b>	<b>445,507</b>			<b>70,336</b>			<b>70,336</b>	<b>16%</b>
USA, SLAC ATLAS T2			PROD_SLAC		277,102			277,102	
<b>US-WT2</b>	<b>550</b>	<b>245,520</b>			<b>277,102</b>			<b>277,102</b>	<b>113%</b>
USA, Caltech CMS T2			CIT_CMS_T2			176,428		176,428	
<b>US-Caltech</b>	<b>470</b>	<b>209,808</b>				<b>176,428</b>		<b>176,428</b>	<b>84%</b>
USA, Florida CMS T2			Uflorida-PG			105,171		105,171	
			Uflorida-IHEPA						
			Uflorida-HPC						
<b>US-Florida</b>	<b>470</b>	<b>209,808</b>				<b>105,171</b>		<b>105,171</b>	<b>50%</b>
USA, MIT CMS T2			MIT_CMS			100,900		100,900	
<b>US-MIT</b>	<b>470</b>	<b>209,808</b>				<b>100,900</b>		<b>100,900</b>	<b>48%</b>
USA, Nebraska CMS T2			Nebraska			187,823		187,823	
<b>US-Nebraska</b>	<b>470</b>	<b>209,808</b>				<b>187,823</b>		<b>187,823</b>	<b>90%</b>
USA, Purdue CMS T2			Purdue-Lear			37,859		37,859	
			Purdue-RCAC			50,767		50,767	
<b>US-Purdue</b>	<b>470</b>	<b>209,808</b>				<b>88,626</b>		<b>88,626</b>	<b>42%</b>
USA, UC San Diego CMS T2			UCSDT2		2	62,893		62,895	
<b>US-UCSD</b>	<b>470</b>	<b>209,808</b>			<b>2</b>	<b>62,893</b>		<b>62,895</b>	<b>30%</b>
USA, U. Wisconsin CMS T2			GLOW			263,304		263,304	
<b>US-Wisconsin</b>	<b>470</b>	<b>209,808</b>				<b>263,304</b>		<b>263,304</b>	<b>125%</b>
<b>Grand Total</b>	<b>28,017</b>	<b>12,506,789</b>		<b>1,388,013</b>	<b>3,721,524</b>	<b>1,589,627</b>	<b>101,098</b>	<b>6,800,262</b>	<b>54%</b>